Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1. (Currently amended) A method of determining whether a member of a pool of cloned test transcription factor polynucleotides encodes a plant pathway transcription factor, the method comprising: collecting a pool of cloned test transcription factor polynucleotides; introducing into a plant cell a nucleic acid comprising a plant promoter of a pathway gene operably linked to a reporter gene; introducing into the plant cell a member of the pool of cloned test transcription factor polynucleotides, wherein said member is selected on the basis of structural similarity to a known transcription factor for a pathway gene; and detecting expression of said reporter gene in the plant cell, thereby determining whether the member of the cloned test transcription factor polynucleotide pool encodes a plant pathway transcription factor.

Claim 2. (Canceled)

Claim 3. (Currently amended) ~~The method of claim 1,~~ A method of determining whether one or more members of a pool of cloned test transcription factor polynucleotides encode a plant pathway transcription factor, the method comprising: collecting a pool of cloned test transcription factor polynucleotides; introducing into a plant cell a nucleic acid comprising a plant promoter of a pathway gene operably linked to a reporter gene; introducing into the plant cell said one or more members of the pool of cloned test transcription factor polynucleotides, wherein ~~a~~ said members of the cloned test transcription factor polynucleotide pool ~~is~~ are selected without regard to structural similarity to a known transcription factor for a pathway gene; and detecting expression of said reporter gene in the plant cell, thereby determining whether one or more members of the cloned test transcription factor polynucleotide pool encode a plant pathway transcription factor.

Claim 4. (Currently amended) The method of claim ~~1~~ 3, further comprising detecting the expression of at least one other pathway gene in the cell.

Claim 5. (Currently amended) The method of claim ~~1~~ 3, wherein said pathway gene is a biosynthetic pathway gene.

Claim 6. (Previously presented) The method of claim 5, wherein said biosynthetic pathway gene is a primary metabolite pathway gene.

Claim 7. (Previously presented) The method of claim 5, wherein said biosynthetic pathway gene is a secondary metabolite pathway gene.

Claim 8. (Previously presented) The method of claim 7, wherein said secondary metabolite pathway gene is a terpenoid pathway gene.

Claim 9. (Previously presented) The method of claim 7, wherein said secondary metabolite pathway gene is an alkaloid pathway gene.

Claim 10. (Currently amended) The method of claim ~~1~~3, wherein said cloned test transcription factor polynucleotide is from a plant.

Claim 11. (Currently amended) The method of claim ~~1~~3, wherein said cloned test transcription factor polynucleotide is expressed transiently in the plant cell.

Claim 12. (Canceled)

Claim 13. (Currently amended) The method of claim ~~1~~3, wherein said plant promoter operably linked to a reporter gene is transiently transfected into the plant cell.

Claim 14. (Currently amended) The method of claim ~~1~~3, wherein said reporter gene is beta-glucuronidase (GUS).

Claim 15. (Currently amended) The method of claim ~~1~~3, wherein said promoter is the promoter of a biosynthetic pathway gene of a plant that produces secondary metabolites.

Claim 16. (Previously presented) The method of claim 8, wherein said terpenoid pathway gene is from a species selected from the group consisting of *Mentha* and *Taxus*.

Claim 17. (Previously presented) The method of claim 8, wherein said terpenoid pathway gene is selected from the group consisting of limonene synthase and taxadiene synthase.

Claim 18. (Currently amended) The method of claim ~~1~~ 3, further comprising deconvoluting the pool of cloned test transcription factor polynucleotides when said pool comprises more than one transcription factor polynucleotide, to identify the minimum number of cloned test transcription factor polynucleotides necessary to detect expression from said pathway gene promoter.

Claim 19. (Withdrawn) A method of determining whether a member of a pool of test transcription factor polynucleotides encodes a transcription factor for a biosynthetic pathway gene, comprising introducing into a cell a pool of nucleic acid members comprising test transcription factor polynucleotides and detecting accumulation of metabolites in the cell.

Claim 20. (Withdrawn) The method of claim 19, wherein said biosynthetic pathway gene is a primary metabolite pathway gene.

Claim 21. (Withdrawn) The method of claim 19, wherein said biosynthetic pathway gene is a secondary metabolite pathway gene.

Claim 22. (Withdrawn) The method of claim 21, wherein said secondary metabolite pathway gene is a terpenoid pathway gene.

Claim 23. (Withdrawn) The method of claim 21, wherein said secondary metabolite pathway gene is an alkaloid gene.

Claim 24. (Withdrawn) The method of claim 19, wherein said cell is from a species selected from the group consisting of *Mentha* and *Taxus*.

Claim 25. (Withdrawn) A method of determining whether a member of a pool of test transcription factor polynucleotides encodes a transcription factor for a terpenoid pathway gene, comprising introducing into a cell a pool of nucleic acid members comprising test transcription factor polynucleotides and detecting accumulation of terpenoids in the cell.

Claim 26. (Currently amended) A method of determining whether a member of a pool of test transcription factor polynucleotides encodes a biosynthetic pathway transcription factor, comprising introducing into a plant cell nucleic acids comprising the test transcription factor polynucleotides and detecting expression of

a biosynthetic pathway gene in the plant cell by quantitation of the biosynthetic pathway gene RNA level, wherein said member of the pool of test transcription factor polynucleotides is selected without regard to structural similarity to a known transcription factor for a pathway gene.

Claim 27. (Withdrawn). A transgenic plant or plant cell comprising a nucleic acid encoding a pathway transcription factor identified by the method of claim 1.

Claim 28. (Withdrawn). The transgenic plant or plant cell of claim 27 comprising a comprising a pathway transcription factor selected from the group consisting of:

(a) a polynucleotide comprising a sequence selected from the group consisting of SEQ ID NOs. 1, 3, 5 and 7; and

(b) a polynucleotide encoding a polypeptide comprising a sequence selected from the group consisting of SEQ ID NOs. 2, 4, 6, and 8.

Claim 29. (Withdrawn) A method of isolating a metabolite, the method comprising:

a) providing a plant cell or plant of claim 28; and

b) isolating the metabolite from said plant cell or plant.

Claim 30. (Withdrawn) The method of claim 29, wherein said metabolite is a primary or secondary metabolite.

Claim 31. (Withdrawn) The method of claim 30, wherein said secondary metabolite is a terpenoid or an alkaloid.

Claim 32. (Withdrawn) The method of claim 29, wherein said plant cell or whole plant is selected from a species selected from the group of *Mentha* and *Taxus*.

Claim 33. (Currently amended) A method of determining whether two or more members of a pool of cloned test transcription factor polynucleotides are required for expression from a pathway gene promoter, the method comprising: collecting a pool of cloned test transcription factor polynucleotides; introducing into a plant cell a nucleic acid comprising a biosynthetic pathway gene promoter operably linked to a reporter gene; introducing into the plant cell the pool of cloned test transcription factor polynucleotides; and detecting expression from said biosynthetic pathway gene promoter in the plant cell, and deconvoluting the pool of cloned test transcription factor polynucleotides to identify the minimum number of cloned test transcription factor polynucleotides necessary to detect expression from said pathway gene promoter.

thereby determining whether two or more members of the cloned test transcription factor polynucleotide pool are required for expression from said biosynthetic pathway gene promoter.

Claim 34. Canceled.

Claim 35. (Previously presented) The method of claim 33, wherein a member of the cloned test transcription factor polynucleotide pool is selected on the basis of structural similarity to a known transcription factor for a pathway gene.

Claim 36. (Previously presented) The method of claim 33, wherein a member of the cloned test transcription factor polynucleotide pool is selected without regard to structural similarity to a known transcription factor for a pathway gene.

Claim 37. (Previously presented) The method of claim 33, further comprising detecting the expression of at least one other pathway gene in the cell.

Claim 38. (Currently amended) The method of claim 33, wherein said pathway gene promoter is operably linked to a biosynthetic pathway gene.

Claim 39. (Currently amended) The method of claim ~~38~~ 33, wherein said biosynthetic pathway gene promoter is a primary metabolite pathway gene promoter.

Claim 40. (Currently amended) The method of claim ~~38~~ 33, wherein said biosynthetic pathway gene promoter is a secondary metabolite pathway gene promoter.

Claim 41. (Currently amended) The method of claim 40, wherein said secondary metabolite pathway gene promoter is a terpenoid pathway gene promoter.

Claim 42. (Currently amended) The method of claim 40, wherein said secondary metabolite pathway gene promoter is an alkaloid pathway gene promoter.

Claim 43. (Previously presented) The method of claim 33, wherein said cloned test transcription factor polynucleotide is from a plant.

Claim 44. (Previously presented) The method of claim 33, wherein said cloned test transcription factor polynucleotide is expressed transiently in the cell.

Claim 45. (Previously presented) The method of claim 33, wherein said cell is from a plant.

Claim 46. (Previously presented) The method of claim 33, wherein said promoter operably linked to a reporter gene is transiently transfected into a cell.

Claim 47. (Previously presented) The method of claim 46, wherein said reporter gene is beta-glucuronidase (GUS).

Claim 48. (Previously presented) The method of claim 33, wherein said promoter is the promoter of a biosynthetic pathway gene of a plant that produces secondary metabolites.

Claim 49. (Previously presented) The method of claim 41, wherein said terpenoid pathway gene is from a species selected from the group consisting of *Mentha* and *Taxus*.

Claim 50. (Previously presented) The method of claim 41, wherein said terpenoid pathway gene is selected from the group consisting of limonene synthase and taxadiene synthase.

REMARKS

Amendments to the claims have been made in response the Examiner's comments. No new matter enters the claims or specification by any of these amendments, and Applicants believe that these amendments do not raise new issues.

Applicants also note that the Applicants' prior response to the Office action of May 23, 2003 was mailed on ***June 11, 2003***. However, under the USPTO's own guidelines for treatment of amendments, ***Applicants had until July 30, 2003 to submit amendments compliant with the previous version of amendment practice*** under 37 C.F.R. 1.121 (see "Amendments Permitted under the Revised Amendment Practice", and "Revised Amendment Practice", page one of each reference with appropriate passages highlighted). In the interest of good will, Applicants are complying with the Examiner's wishes in the present Response. However, Applicants reserve the right to request a patent term extension for the delay brought about by this Office action.